

FIG. 1

**MuniAuction**  
The First Municipal Bond Auction Website

22b  
INFORMATION REGISTRATION AUCTION

16

22a

22c

FIG. 2

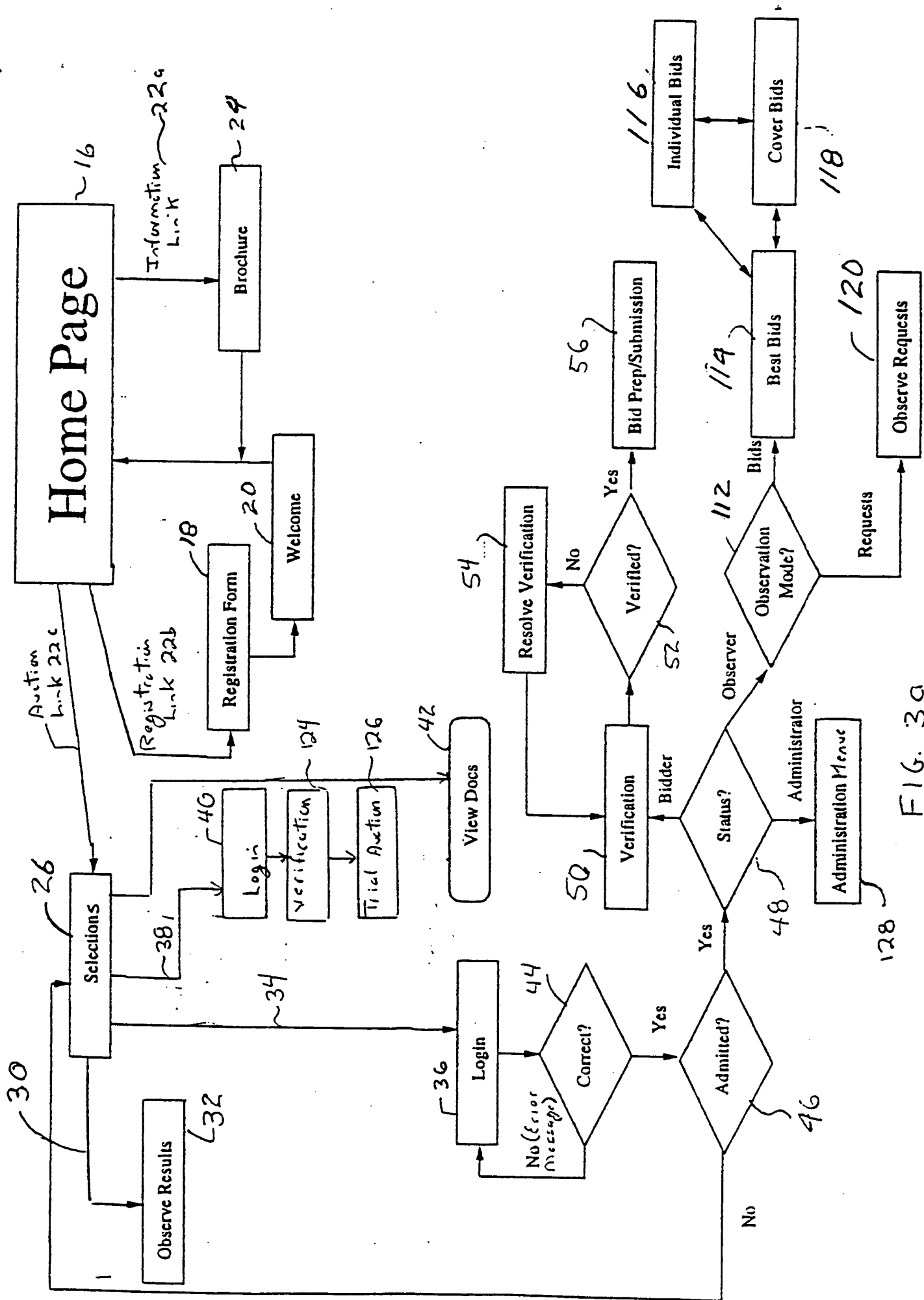


FIG. 3a

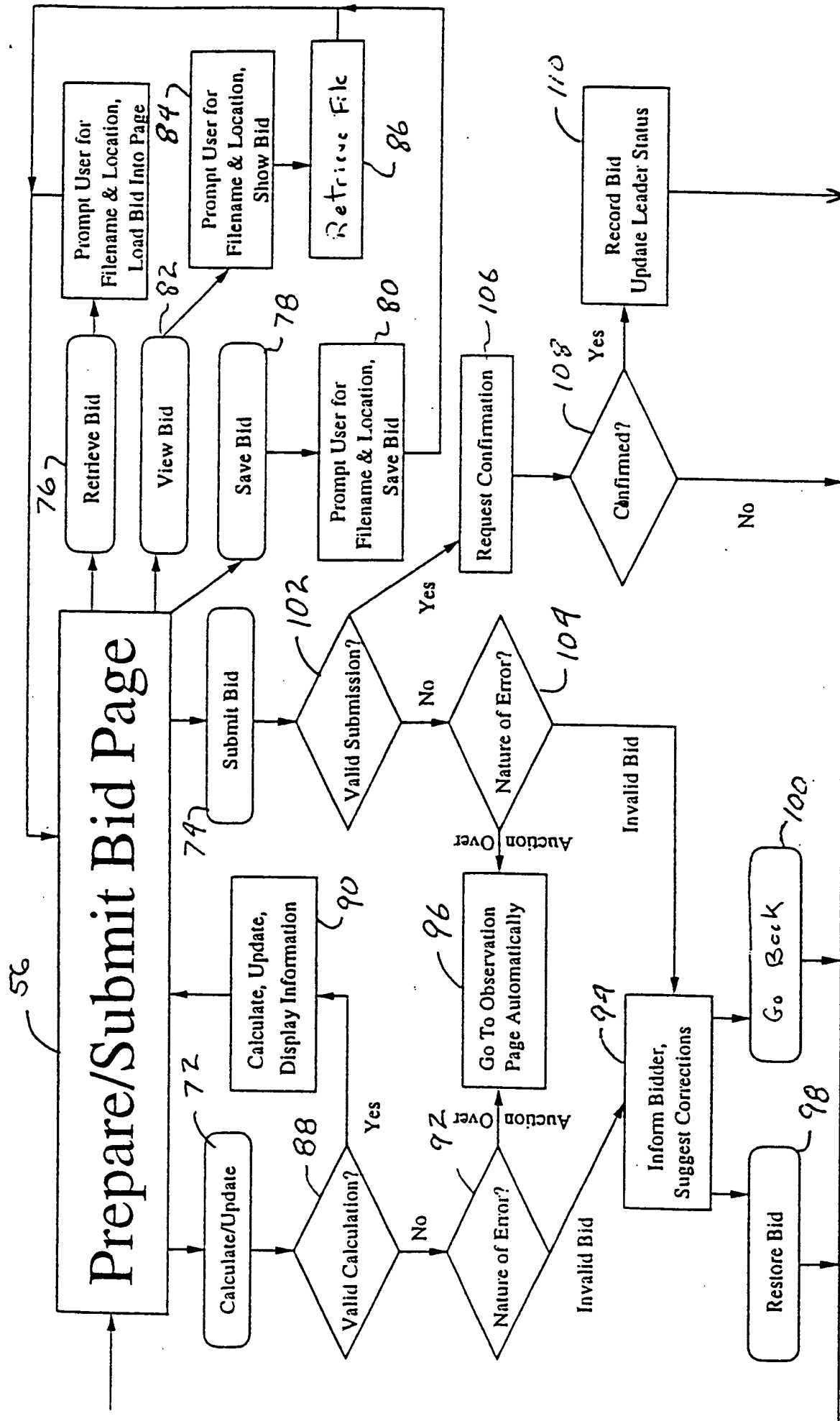


FIG. 3b

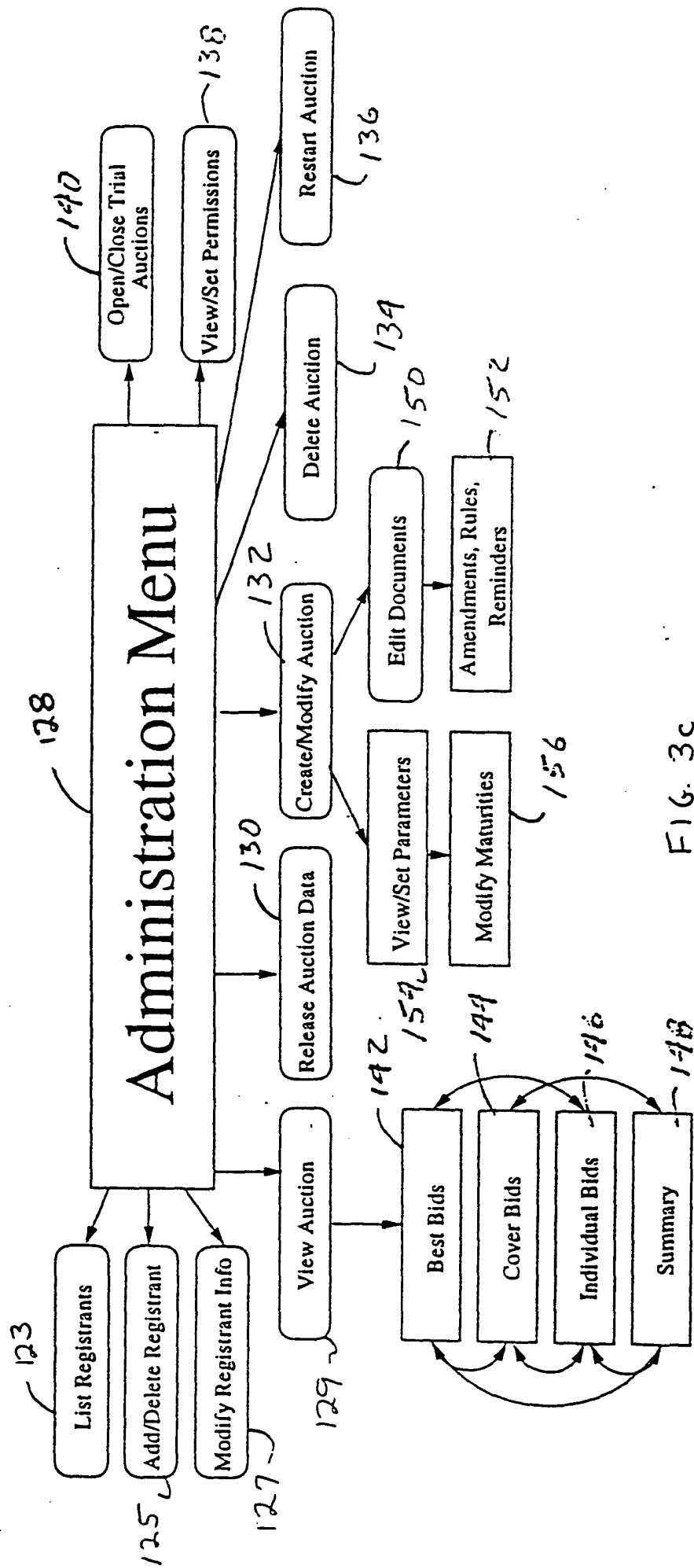


FIG. 3c

**REGISTRATION QUESTIONS** (Fields displayed in bold below are required.)

**FIRST NAME:**

**LAST NAME:**

**ORGANIZATION:**

**ADDRESS (1st Line):**

**ADDRESS (2nd Line):**

**CITY:**

**STATE:**

**ZIP:**

**TELEPHONE:**

**TELEFAX:**

**E-MAIL:**

**MOTHER'S MAIDEN NAME:**  (for security reasons only, e.g., verify your identity by phone)

FIG. 4

# Selections

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Issuer	State	Description	Size*	Auction Date*	Start Time*
City of Trial Auction (All-or-None)	OR	Limited Tax Revenue Bonds 1998 Series A	\$29,000,000	Any Day	Any Time
(Amendments modified 4/20/98 @10:14 pm)					
<input type="button" value="Enter Auction"/> <input type="button" value="View Notice of Sale"/> <input type="button" value="View Amendments"/> <input type="button" value="View POS"/>					
City of Trial Auction (Maturity-by-Maturity)	OR	Limited Tax Revenue Bonds 1998 Series A	\$29,000,000	Any Day	Any Time
(Amendments modified 4/20/98 @10:14 pm)					
<input type="button" value="Enter Auction"/> <input type="button" value="View Notice of Sale"/> <input type="button" value="View Amendments"/> <input type="button" value="View POS"/>					
City of Portland (All-or-None)	OR	Limited Tax Revenue Bonds 1998 Series A	\$29,000,000	4/21/98	11:30 am EDT
(Amendments modified 4/20/98 @10:14 pm)					
<input type="button" value="Observe Results"/> <input type="button" value="View Notice of Sale"/> <input type="button" value="View Amendments"/> <input type="button" value="View POS"/> <input type="button" value="Request Admission"/>					
City of Portland (Maturity-by-Maturity)	OR	Limited Tax Revenue Bonds 1998 Series A	\$29,000,000	4/21/98	11:30 am EDT
(Amendments modified 4/20/98 @10:14 pm)					
<input type="button" value="Observe Results"/> <input type="button" value="View Notice of Sale"/> <input type="button" value="View Amendments"/> <input type="button" value="View POS"/> <input type="button" value="Request Admission"/>					

Go to: [MuniAuction Home Page](#), [Rules](#) (modified 4/16/98 @5:01 pm), [Instructions](#),  
[Reminders](#), [Results](#)

FIG 5

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**Observe Auction: Portland.1998A.MBM**  
**MBM Best Bids**

Auction Date	Auction Type	Start	End	Time Of Last Update	Auction Status
Tue., Apr 21, 1998	MBM	11:30 am	12:00 pm	11:13:05 am EDT	Over

\$29,000,000  
City of Portland, Oregon  
Limited Tax Revenue Bonds  
1998 Series A

Best MBM TIC:	Best AON TIC:	Best AON Bidder:
4.9574 % (Not Winner)	4.9526 % (Winner )	Salomon Smith Barney (Winner )

Refresh

**Principal**

Due	Amount*	Coupon	Price	Best Yield	Best MBM Bidder
April 1, 2000	\$1,000,000	3.900%	99.703%	4.063%	U.S. Bancorp Securities, Inc.
April 1, 2001	\$1,040,000	4.000%	99.578%	4.155%	U.S. Bancorp Securities, Inc.
:	:	:	:	:	:
April 1, 2016	\$2,050,000	5.000%	98.004%	5.172%	ADVEST INC.
April 1, 2017	\$2,160,000	5.100%	98.710%	5.208%	U.S. Bancorp Securities, Inc.
April 1, 2018	\$2,270,000	5.125%	99.032%	5.203%	CIBC-Oppenheimer

Refresh

**Click below to see other bidder results**

LEBE-OS	WILL-MD	PRAG-RM	BELL-ER	GEOR-KD	HUTC-RD	FIRS-RE
FIDE-DD	ADVE-JL	INTE-SF	RAYM-JR	A.G.-GH	SEAT-MA	U.S.-KS
MORG-TB	COMM-CB	EDWA-JC	ARTE-BW	CIBC-WH	Cover Bids	Bid Summary

Go [Notice of Sale](#), [Amendments](#) (modified 4/20/98 @ 10:14 pm), [POS](#), [Rules](#) (modified to: 4/16/98 @ 5:02 pm) [Instructions](#), [Reminders](#), [Selections](#), [Results](#)

Exit  
to: [MuniAuction Home Page](#)

FIG. 6

# Login

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Auction Name: AON.TRIALAUCTION.SeriesA

Please go to Registration page if you have not yet registered with MuniAuction.

Enter your ID number:

Enter your password:

Note: Password is Case-Sensitive.

FIG. 7

**ENTER**  as a Bidder  
as an Observer

Exit to: MuniAuction Home Page

BEST AVAILABLE COPY

## Acknowledgement

In order to view this POS, you must first acknowledge that you are eligible to bid (i.e., you represent either a bank or NASD registered broker-dealer).

**I Am Eligible**

**I Am Not Eligible**

*This shall not constitute a solicitation or offer to bid or purchase these securities to such persons or in such jurisdictions to which such offerings or solicitations are not permitted. An offer or solicitation shall be made only by means of the Preliminary Official Statement.*

Back to:

**Selections Page**

FIG. 8



# Verification

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Your name is Edward Pencoske.  
Your firm is Thorp Reed & Armstrong.  
This auction is AON.TRIAL.AUCTION.1998A.  
This auction is an All-Or-None auction.

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Please verify that the above information is correct.

☐ YES ☐ NO

Have you read the Notice of Sale and related Amendments (modified 4/20/98 @10:14 pm), if any, and do you agree to abide by the terms and conditions?

☐ YES ☐ NO

Have you read the Preliminary Official Statement?

☐ YES ☐ NO

Have you read the Rules of MuniAuction (modified 4/16/98 @5:01 pm) and do you agree to abide by them?

☐ YES ☐ NO

Enter Auction

Go Notice of Sale, Amendments (modified 4/20/98 @10:14 pm), POS, Rules (modified to: 4/16/98 @5:01 pm) Instructions, Reminders, Selections, Results  
Exit  
to: MuniAuction Home Page

FIG. 9

# Auction

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Auction Date	Auction Type	Start	End	Time Of Last Update	Auction Status
Mon., Feb 23, 1998	h3M	9:30 am	10:00 am	3:10:16 pm	Over

\$91,760,000  
The Pittsburgh Water and Sewer Authority, Pennsylvania  
Water and Sewer System First Lien Revenue Bonds,  
Series A of 1998

Name of firm submitting bid: MuniAuction, Inc.

72 70 74 76

This auction is competing with Pittsburgh Water And Sewer Series A AON.

As of 3:10:16 pm, bids have been submitted for all maturities.

Calculate/Update		IMPORTANT: Bidders must click the "Calculate/Update" button frequently during auction to update "Time of Last Update". Also, clicking "Calculate/Update" does not result in bid submission.				Submit Bid	
68 Due	66 Principal Amount	Coupon	Enter Either:		70 Your Status	76 Submitted Cpn-PP-YTM	
			Purchase Price	OR	Yield-to-Maturity		
September 01, 2017	\$8,275,000	%	%	OR	%	Not Winner	
September 01, 2018	\$8,695,000	%	%	OR	%	Not Winner	

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September 01, 2025	\$12,370,000	%	%	OR	%	Not Winner
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	IMPORTANT: Bidders must click the "Calculate/Update" button frequently during auction to update "Time of Last Update". Also, clicking "Calculate/Update" does not result in bid submission.	
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Go to: [Notice of Sale](#), [Amendments](#) (modified 2/20/98 4:11:23 am), [PWS Rules](#) (modified 2-2-98 4:11:40 am), [Instructions](#), [Reminders](#), [Schedule](#)  
Exit to: [MuniAuction Home Page](#)

FIG. 10

# Auction

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Auction Date	Auction Type	Start	End	Time Of Last Update	Auction Status
Mon., Feb 23, 1998	AON	9:30 am	10:00 am	3:03:28 pm	Over

\$91,760,000  
The Pittsburgh Water and Sewer Authority, Pennsylvania  
Water and Sewer System First Lien Revenue Bonds,  
Series A of 1998

Name of firm submitting bid: MuniAuction, Inc.

Purchase Price: \$ 77 76  
(not to be less than \$29,466,000.00)

Your TIC: NO BID Your Status: Not Winner

703 This auction is competing with Pittsburgh Water And Sewer Series A, MDN.

As of 3:03:28 pm, there has been at least one all-or-none bid submitted in this auction.

<b>Calculate/Update</b>		<b>IMPORTANT:</b> Bidders must click the "Calculate/Update" button frequently during auction to update "Time of Last Update". Also, clicking "Calculate/Update" does not result in bid submission.				<b>Submit Bid</b>	
<b>68</b> Due	<b>66</b> Principal Amount	Serial/ Sinker/ Term	Coupon	Enter Either:			
				Reoffering Price	OR	Yield-to-Maturity	
September 01, 2017	\$8,275,000	Serial	%	%	OR	%	
September 01, 2018	\$8,695,000	Serial	%	%	OR	%	
:	:	:	:	:	:	:	:
:	:	:	:	:	:	:	:
:	:	:	:	:	:	:	:
September 01, 2025	\$12,370,000	Serial	%	%	OR	%	

**IMPORTANT:** Bidders must click the "Calculate/Update" button frequently during auction to update "Time of Last Update". Also, clicking "Calculate/Update" does not result in bid submission.

Go to: [Notice of Sale, Amendments](#) (modified 2/20/98 @ 11:23 am), [PWS Rules](#) (modified 2/20/98 @ 11:40 am), [Instructions](#), [Reminders](#), [Selections](#)  
Exit to: [MuniAuction Home Page](#)

FIG. 11

# Error

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Sorry. Your bid was invalid for the following reasons:

1. For the Sinking Fund redemptions maturing on September 01, 2022 you are not allowed to enter a yield.
2. For the Sinking Fund redemptions maturing on September 01, 2022 you have entered price or coupon values that are not identical to the values for the corresponding Term bonds maturing on September 01, 2023.
3. You specified bonds maturing on September 01, 2020 as Term bonds, but you did not specify bonds for the preceding maturity as Sinking Fund redemptions (i.e., "Sinker").
4. You specified bonds maturing on September 01, 2018 as Sinking Fund redemptions, but you did not specify the subsequent maturity as either Sinking Fund redemptions (i.e., "Sinker") or Term bonds.

*To specify any maturity as a term bond maturity, you must specify one or more preceding maturities as Sinking Fund redemptions.*

5. For the bonds maturing on September 01, 2017 you entered a coupon less than 1.00%.
6. Your Purchase Price must not be less than \$39,466,000.00
7. For the bonds maturing on September 01, 2017 your coupon entry of 0% does not conform to the rules of the auction. Coupon entered must be non-zero.

To return to the Auction Page with your most recent inputs, click the BACK button below.

BACK

To restore the Auction Page to your last successfully submitted bid, click the Restore button below (Warning: If no bid has yet been successfully submitted, clicking the Restore button will return you to a blank Auction Page).

Restore

Go to: [Notice of Sale, Amendments](#) (modified 2/20/93 @ 11:23 am), [POS, Rules](#) (modified 2/20/93 @ 11:40 am) [Instructions](#), [Reminders](#), [Selections](#)

Exit to: [MuniAuction Home Page](#)

FIG. 12

# Confirmation

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Auction Date	Auction Type	Start	End	Time Of Last Update	Auction Status
Any Day	AON			4:57:37 pm	

\$91,760,000  
AON Trial Auction (Series A), Pennsylvania  
Water and Sewer System First Lien Revenue Bonds,  
Series A of 1998

Name of firm submitting bid: MuniAuction, Inc.

Are you sure you want to submit the following bid?

No, Go Back

Yes, Submit Bid

Purchase Price: \$90,000,000.00

Your TIC: 6.9803 %

Due	Principal Amount	Serial/ Sinker/ Term	Coupon	Price	Yield
Beginning of Term group					
September 01, 2017	\$8,275,000	Sinker	5.000%	100.000%	---
September 01, 2018	\$8,695,000	Sinker	5.000%	100.000%	---
September 01, 2019	\$9,140,000	Sinker	5.000%	100.000%	---
September 01, 2020	\$9,610,000	Sinker	5.000%	100.000%	---
September 01, 2021	\$10,105,000	Term	5.000%	100.000%	5.000%
End of Term group					
September 01, 2022	\$10,630,000	Serial	6.000%	100.000%	6.000%
Beginning of Term group					
September 01, 2023	\$11,180,000	Sinker	7.000%	100.000%	---
September 01, 2024	\$11,755,000	Sinker	7.000%	100.000%	---
September 01, 2025	\$12,370,000	Term	7.000%	100.000%	7.000%
End of Term group					

Go to: [Notice of Sale, Amendments](#) (modified 2/20/93 @ 11:23 am), [POS, Rules](#) (modified 2/20/93 @ 11:40 am), [Instructions](#), [Reminders](#), [Selections](#)

Exit to: [MuniAuction Home Page](#)

FIG. 13

# Administration

Auction Permissions: Pittsburgh Water And Sewer Series A.AON

Observe All

Change Auction Permissions

Return to Menu

Admission Status	Allow Bid	Allow Obs	ID Number	Organization
Requested	<input type="checkbox"/>	<input type="checkbox"/>	MUNI-OV	MiniAuction, Inc.
Requested	<input type="checkbox"/>	<input type="checkbox"/>	SHOD-RO	The Shodor Education Foundation
	<input type="checkbox"/>	<input type="checkbox"/>	CMU-OH	CMU

	<input type="checkbox"/>	<input type="checkbox"/>	ONLI-KO	OnLine Partners
Requested	<input checked="" type="checkbox"/>	<input type="checkbox"/>	SHOD-MS	Pulcrum
	<input type="checkbox"/>	<input type="checkbox"/>	TEST-MT	Test, Inc.

Change Auction Permissions

Return to Menu

FIG. 14

# Administration

## Create New Auction

Date of Auction: Month  Day  Year   
 Time:  AM  PM  
 Auction Rules: Month  Day  Year   
 Bid Period: Month  Day  Year   
 Date of First Interest Payment: Month  Day  Year   
 First Optional Call Date: Month  Day  Year   
 Good Faith Deposit: \$   
 Clearing Agent Fee:  cents per \$1,000 bond  
 Overnight Loan Charge:  cents per \$1,000 bond

Auction Type	8 Total Auction
Options	<input type="radio"/> All-or-None <input checked="" type="radio"/> Minimum Allowable Purchase Price: \$ <input type="text"/> <input type="radio"/> Allow Bids to Exceed Time <input type="radio"/> Allow Bids to Exceed Time
Auction Method	<input checked="" type="radio"/> Display Best TCOY bid and Status <input type="radio"/> Display Status for Bidder Best TCOY's M <input type="radio"/> Bidder Best TCOY bid and Status
Auction Method	<input checked="" type="radio"/> Display Best TCOY bid and Status <input type="radio"/> Display Status for Bidder Best TCOY's M <input type="radio"/> Bidder Best TCOY bid and Status
Competition	<input checked="" type="radio"/> No Competition <input type="radio"/> The auction will compare bids
Settlement	<input checked="" type="radio"/> Bidder Best <input type="radio"/> Bidder Best

Maximum Allowable Bidding Price	\$ <input type="text"/>
Maximum Allowable Bidding Price	\$ <input type="text"/>
Maximum Allowable Coupon	\$ <input type="text"/>
Maximum Allowable Coupon	\$ <input type="text"/>
Accounting Trade Required	Accounting Trade Not Required
Zero Coupon Allowed	Zero Coupon Not Allowed
Zero Coupon Required	Zero Coupon Required
Zero Coupon Required	Zero Coupon Required
No Restrictions on coupon	Coupon must be subject to all
Allow All Bids	Allow Bids Not Only
Number of restrictions to be entered	
Auction name	
Country (if applicable)	
State	
Auction Description	

FIG. 15